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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,391	07/18/2003	Ta-Kuang Chang	4425-307	2465

7590

08/11/2004

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EXAMINER

JOYCE, HAROLD

ART UNIT PAPER NUMBER

3749

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/621,391

Applicant(s)

CHANG ET AL.

Examiner

Harold Joyce

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12-16 and 40-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-16 and 40-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2004 is/are: a) ☒ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by the Australian patent. In lines 8 and 9, "wherein particles existing ... said filter" recites no structure and accordingly cannot serve to distinguish.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Australian patent in view of Wonsetler. The Australian patent discloses the claimed invention including a fan 58 and a suitable filter arrangement (page 7, line 35 to page 8, line 2). The Australian patent does not disclose a centrifugal fan and a HEPA/ULPA filter and prefilter. Wonsetler teaches that it is known to provide an exhausting station with a squirrel cage type fan and a fine filter and coarse filter as set forth at column 3, lines 43-63. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the fume cabinet of the Australian patent with a

centrifugal fan and a HEPA/ULPA filter and prefilter, as taught by Wonsetler in order to provide an equivalent type of air mover and suitable filter arrangement.

5. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Australian patent in view of Wilk et al. The Australian patent discloses the claimed invention except for a bottom partition having plural outlets and four sidewalls having a sloping profile. Wilk et al. teaches that it is known to provide a gas, smoke, solid particles and the like removal device with plural outlets and four sloping side walls as set forth at column 3, line 63 to column 4, line 17. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the fume cabinet of the Australian patent with plural outlets and four sloping side walls, as taught by Wilk et al. in order to reduce the speed and energy of spark particles. As to claim 9, the inside surfaces of the Australian patent inherently become sticky from spillage.

6. Claims 12-13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Australian patent in view of Gayring. The Australian patent discloses the claimed invention except for the half cylindrical canopy. Gayring teaches that it is known to provide cabinet with a hood and shield as set forth at page 2, lines 36-50. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide to substitute the cylindrical canopy in Gayring for the top cover of the Australian in order to provide an equivalent canopy. For the hood to be a half cylindrical rather than a quarter of a cylinder would have been an obvious matter of design choice since such a modification would have involved a mere change in the size of an opening of the hood. A change in size is generally recognized as being within the level

of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). As to claim 16, the inside surfaces of the Australian patent inherently become sticky from spillage.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Australian patent as applied to claim 13 above, and further in view of Kleppen. Further, the Australian patent discloses the claimed invention except for the glove port. Kleppen teaches that it is conventional to provide a work station enclosure with glove ports as set forth at column 4, lines 24-31. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the fume cabinet of the Australian patent with the glove port, as taught by Kleppen in order to accommodate a pair of gloves.

8. Claims 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Australian patent in view of Gayring as applied to claim 12 above, and further in view of Wonsetler. Further, the Australian patent discloses the claimed invention including a fan 58 and a suitable filter arrangement (page 7, line 35 to page 8, line 2). The Australian patent does not disclose a centrifugal fan and a HEPA/ULPA filter and prefilter. Wonsetler teaches that it is known to provide an exhausting station with a squirrel cage type fan and a fine filter and coarse filter as set forth at column 3, lines 43-63. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the fume cabinet of the Australian patent with a centrifugal fan and a HEPA/ULPA filter and prefilter, as taught by Wonsetler in order to provide an equivalent type of air mover and suitable filter arrangement.

9. Claims 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Australian patent in view of Gayring as applied to claim 12 above, and further in view of Wilk et al. Further, the Australian patent discloses the claimed invention except for a bottom partition having plural outlets and four sidewalls having a sloping profile. Wilk et al. teaches that it is known to provide a gas, smoke, solid particles and the like removal device with plural outlets and four sloping side walls as set forth at column 3, line 63 to column 4, line 17. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the fume cabinet of the Australian patent with plural outlets and four sloping side walls, as taught by Wilk et al. in order to reduce the speed and energy of spark particles.

Drawings

10. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the centrifugal fan (claim 2) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

11. The drawings were received on June 23, 2004. The drawing sheet containing Figure 2B is acceptable. The drawing sheet containing Figure 2A is not approved and therefore has not been entered since a centrifugal fan is not shown.

Response to Arguments

12. Applicant's arguments filed June 23, 2004 have been fully considered but they are not persuasive. Upon reconsideration the indicated allowability of claim 9 and 13-16 has been withdrawn.

13. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

14. In response to applicant's argument that to combine fume cabinet of Miglione's invention with the squirrel cage blower and coarse filter of Wonsetlet's invention is not easy done or to combine Miglione with Wild et al. would increase the particles being collected in the dead spaces, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

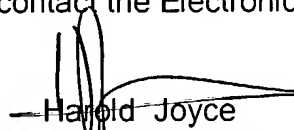
15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 3749

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harold Joyce whose telephone number is (703) 308-0274. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on (703) 308-1935. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Harold Joyce
Primary Examiner
Art Unit 3749